

Risk Management in Future Electric Markets

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Enterprise-Wide Risk Management

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Houston, TX

September 30, 2002

Good Risk Management Essential for US Electric Markets

- Why Risk Management is Vital
 - Capital Intensive Industry
 - Highly Volatile Pricing
 - No Storage
 - (Artificially) Inelastic Demand
 - Locational Values Matter
- But It Hasn't Worked Well Yet
 - Compare with Natural Gas
 - Futures Contract
 - Locational Swaps
 - Now Electric Troubles Threaten Gas as Well

Once Upon a Time In the West

- The Key Question in Early 2001, Western US
 - Not: What Will the Future Price Be
 - Not Even: Who Will Set the Price?
 - But: Who Will Own the Assets?
 - International Players Recognize This as Country Risk
- The Key Questions in Early 2002, Western US
 - Can You Trust Anyone in the Market?
 - Will Anyone be Left to Play?
 - Another Form of Country Risk?

The FERC Strategic Plan: Making Markets Work

Given What Happened in the West, We Need to:

- ***Make Markets Possible:*** Promote a Secure, High Quality, Environmentally-responsible Energy Infrastructure Through Consistent Policies
- ***Make Markets Work:*** Foster Nationwide Competitive Energy Markets as a Substitute for Traditional Regulation
- ***Make Sure Markets Work:*** Protect Customers and Market Participants through Vigilant and Fair Oversight of the Transitioning Energy Markets

Two Key Initiatives

- Standard Market Design
- Market Oversight and Enforcement

Standard Market Design

- Key Features
 - Independent Transmission Providers
 - More Standardization in Markets
 - Better Market Pricing
 - Better Market Safeguards
- Timing
 - Rule in Early 2003
 - Implementation in Stages

Standard Market Design

Independent Transmission Providers

- Purpose
 - No Discrimination
 - Greater Credibility
- Nature
 - Same Basic Requirements as RTOs
 - Except for Scope
 - Mandatory, not Voluntary
 - Keys are True Independence and True Operation of System

Standard Market Design

More Standardization in Markets

- Purpose
 - Facilitate Trade Around the Continent
 - Lower Engagement Costs
- Provisions to Get Similar Market Structures
 - Day Ahead
 - Real Time
 - Transmission, based on Locational Marginal Pricing
 - Alleviate Seams as Much as Possible
 - Encourage Standardized Business Practice
 - But: Balance with Regional Flexibility

Standard Market Design

Better Market Pricing

- Purpose
 - Increase Efficiency in Operation
 - Get the Right Investments at the Right Place at the Right Time
- Provisions
 - Day Ahead and Real Time Markets
 - Makes prices Transparent
 - Solves Short-term Dispatch Issues
 - Provides Basis for Long-term Prices, Settling Derivatives
 - Locational Marginal Pricing
 - Gets the Right Operational Price Signals
 - Gives Signals for Investment
 - Participant Funding for Transmission

Standard Market Design

Better Market Safeguards

- Purpose
 - Avoid Market Meltdowns
 - Avoid Market Power
 - Re-establish Confidence in Energy Markets
- Market Mitigation
 - Load Pocket – Must Run, Constrained Bids
 - Safety Net Bid Cap
 - Resource Adequacy Requirement
 - Optional Mitigation of Persisting Problems
- Market Monitoring

Market Oversight and Enforcement

- Two Tiered System
- Market Monitoring Units (MMUs) for Individual Electric Markets
- FERC Office of Market Oversight and Investigation (OMOI)

MMUs

- What Are They?
 - Independent Market Experts at Market Level
 - Independent of all Market Participants
 - Independent of ITP Managers
 - Report to ITP Board and FERC
- What do They Do?
 - Market Performance (Annual Reports)
 - Problems as They Arise (Real-time Reporting)
 - Investigations within the Market
- Where are They Now?
 - PJM
 - NYISO
 - ISO-NE
 - CAISO
 - MISO

OMOI

- Who Are We?
 - New Office Within FERC
 - Staff of 120 by FY '04
 - Wide Range of Expertise to Understand Markets and Remedy Problems
- What Do We Do? Goal 3 of Strategic Plan:
 - Promote Understanding of Energy Market Operations and Technologies
 - Assure Pro-Competitive Market Structure and Operations
 - Remedy Individual Market Participant Behavior as Needed to Ensure Just and Reasonable Market Outcomes
- OMOI and MMUs are Strategic Partners to Ensure
 - There is a Cop on the Beat
 - The Cop Understand the Beat

Conclusion

- Where are We Now?
 - Much Better Off than 18 Months Ago
 - But a Long Way to Go
 - Curious Situation
 - Markets On the Ground in Many Areas
 - But Public and Political Backing Unclear
- Where are We Going?
 - Strong, Transparent, Regional Markets You Can Rely On
 - Market Power Under Control
 - Market Interventions Known Beforehand
 - Pricing that Reflects Value of
 - Time
 - Location
- ***This Matters to You and You Matter to Us***
 - ***Good Markets Make Risk Management Feasible***
 - ***Good Risk Management Should be Vital to Electric Markets***